

SUMMARY

The subject of this thesis is evaluation of the surgical procedures in treatment of old anterior cruciate ligament injury.

We reviewed the anatomy of the knee ligaments, biomechanics and function of ACL, diagnosis and surgical treatment of old ACL injury.

The ACL is a strong ligament about 41 cm long, connecting the anterior part of the intercondylar region of the tibial plateau to the posterior part of the medial surface of lateral femoral condyle. It has synovial covering which supplies it with its blood supply.

The functions of the ACL is resistance of internal rotation, anterior translation, hyperextension of the tibia in relation to the femur.

Diagnosis of old tear of the ACL is accomplished by history of haemoarthrosis and pop during the initial injury, recurrent giving way, pain and swelling.

Examination of ACL injury by the laxity tests can almost reach the diagnosis. Arthroscopic examination can be done to confirm the diagnosis and any internal derangement of the knee. Examination of associated ligamentous injury is essential part for the diagnosis.

Reconstruction of ACL can be done either extra-articular using mainly the ilio-tibial band or intra-articular using the patellar tendon, the iliotibial band, the meniscus, the gracillis or the semitendinosus tendon. The two procedures can be combined.

We dealt with thirty-five cases with old ACL injury. A thorough history for all of them was taken and preoperative of twenty six of them was recorded.

Assessment of that material shows that the frequency of giving is the major factor in determination of the degree of the knee instability.

Extra-articular reconstruction of the ACL using MacIntosh procedure was done for fifteen of them. Intra-articular reconstruction of the ACL using modified Jones procedure was done for the remaining twenty cases. All of the cases were subjected to a

strict rehabilitation program ranging between three months for MacIntosh procedure and up to twelve months for modified Jones' procedure.

The results of the cases were assessed according to patient's opinion, subjective, functional and objective criteria.

The final assessment gave a satisfactory rating (excellent and good) of:

- MacIntosh procedure 40%
- Modified Jones' procedure 60%

After making a discussion of our results and the results of other surgeons, we have found that modified Jones procedure is the procedure of the future for old tear of the ACL injury. Although this procedure carries the risk of complications but it provides better static stability of the knee.